

**BOEING REALTY CORPORATION  
FORMER C-6 FACILITY  
LOS ANGELES, CALIFORNIA**

---

**SAMPLING AND ANALYSIS PLAN SUPPLEMENT NO. 2**

**FORMER CHROMIC ACID TANK LOCATION  
PARCEL C**

---

**To: Mr. Brian Mossman  
Boeing Realty Corporation  
3760 Kilroy Airport Way, Suite 500  
Long Beach, CA 90806**

**From: Haley & Aldrich, Inc.**

**Date: February 15, 2001**

**Re: Sampling and Analysis Supplement No. 2 for the Boeing Realty Corporation Former C-6 Facility  
– Parcel C, Former Chromic Acid Tank Location, Los Angeles, California**

---

Haley & Aldrich, Inc. is herein providing this technical memorandum as a supplement to the *Sampling and Analysis Plan* (dated August 16, 2000), prepared by Kennedy/Jenks Consultants (KJC) for Boeing Realty Corporation's (BRC's) Former C-6 Facility – Parcel C, Los Angeles, California (subject parcel). This technical memorandum describes additional sampling activities to be conducted in proximity to a former chromic acid tank on the subject parcel. The approximate location of the subject former chromic acid tank is depicted on Figure 1.

**OVERVIEW/PURPOSE**

It is proposed that four soil borings be advanced on the subject parcel. Soil samples will be obtained within the soil borings and will be analyzed to provide additional information regarding total and hexavalent chromium concentrations in soil in proximity to a former chromic acid tank located within former Building 2 on the subject parcel.

**PREVIOUS TANK REMOVAL AND REMEDIAL EXCAVATION ACTIVITIES**

A former chromic acid tank and two rinse tanks within Building 2 were removed in 1988. The tank removal, remedial excavation, and soil sampling activities are summarized in the following two May 13, 1988 reports prepared by Woodward-Clyde Consultants:

- *Chromic Acid Soil Remediation at Douglas Aircraft Company, C6 Facility in Torrance, California*
- *Recommendations from the Chromic Acid Tank Investigation at the Torrance (C6) Facility, dated 12 May 1988*

A review of these reports indicates that chromium-impacted soil was removed following tank removal activities. Impacted soil was excavated based on visual observations of concrete deterioration and field measurements of pH and electrical conductivity (EC); since, soil impacted by chromic acid will

field measurements of pH and electrical conductivity (EC); since, soil impacted by chromic acid will typically have lower pH and higher EC compared to non-impacted soil. These observations and measurements were verified by collecting samples from the excavation and testing them for total chromium. The final limits of the excavation ranged from approximately 10 feet below ground surface (bgs) at the southern end to 20 feet bgs at the northern end. The approximate former tank excavation sample locations (CHROME – 1 through CHROME – 7) are depicted on the attached Figure 2. The total chromium results for these samples ranged from 38 to 170 mg/kg. The field action levels (FALs) for total and hexavalent chromium derived to be health protective and to be within natural background ranges are 40 and 42 mg/kg, respectively. Of the samples collected from the limits of the excavation, two had total chromium results greater than 40 mg/kg. These samples were obtained from a depth of 11 feet bgs at the bottom of the southern portion of the excavation (44 mg/kg at sample CHROME - 1), and a depth of 10 feet bgs along the sidewall of the northern portion of the excavation (170 mg/kg at sample CHROME - 6). The above-referenced May 13, 1988 remediation report further indicates that based on the spatial concentration trends of other samples obtained from the tank excavation, chromium impacted soil likely does not extend more than two feet into the northern sidewall.

#### **FORMER CHROMIC ACID TANK LOCATION**

The location of the subject former chromic acid tank and rinse tanks within Building 2 are not apparent based on the tank location description and figures presented in the May 13, 1988 reports. Based information provided by Mr. Scott Lattimore of BRC, it is understood that the former tank was situated at grade (the first floor), and is identified as environmental feature S32 (chromate dip tank) and S31 (Pit) at grid location L30, as depicted on Figure 1 of Technical Memo No. 1, Sampling and Analysis Supplement, dated January 19, 2001.

#### **RECOMMENDED SAMPLING LOCATIONS**

The proposed soil boring locations are depicted on the attached Figure 3. As indicated in the attached figure, the borings will be located as follows:

- one boring at the approximate location of sample CHROME – 1,
- one boring approximately 5 feet south of former sample CHROME – 1,
- one boring at the approximate location of former sample CHROME – 6, and
- one boring approximately 5 feet north of former sample CHROME – 6.

This area is currently undeveloped. Soil samples will be collected from the two borings to be advanced at and south of former sample CHROME-1 at depths of 11, 15, and 20 feet bgs. Soil samples will be collected from the two borings to be advanced at and north of former sample CHROME-6 from depths 10, 15, 20, and 25 feet bgs.

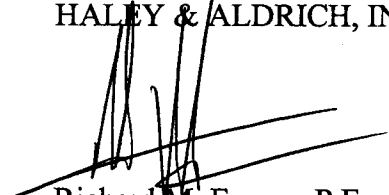
#### **RECOMMENDED ANALYSIS**

Each soil sample will be analyzed for total chromium and hexavalent chromium following U.S. Environmental Protection Agency (EPA) Method 6010B and 7196A, respectively.


**INVESTIGATION-DERIVED WASTE (IDW) MANAGEMENT**

IDW generated during the course of the investigation will be managed, as noted above, in accordance with the *Site-Wide Soil and Waste Management Plan*, dated October 31, 2000.

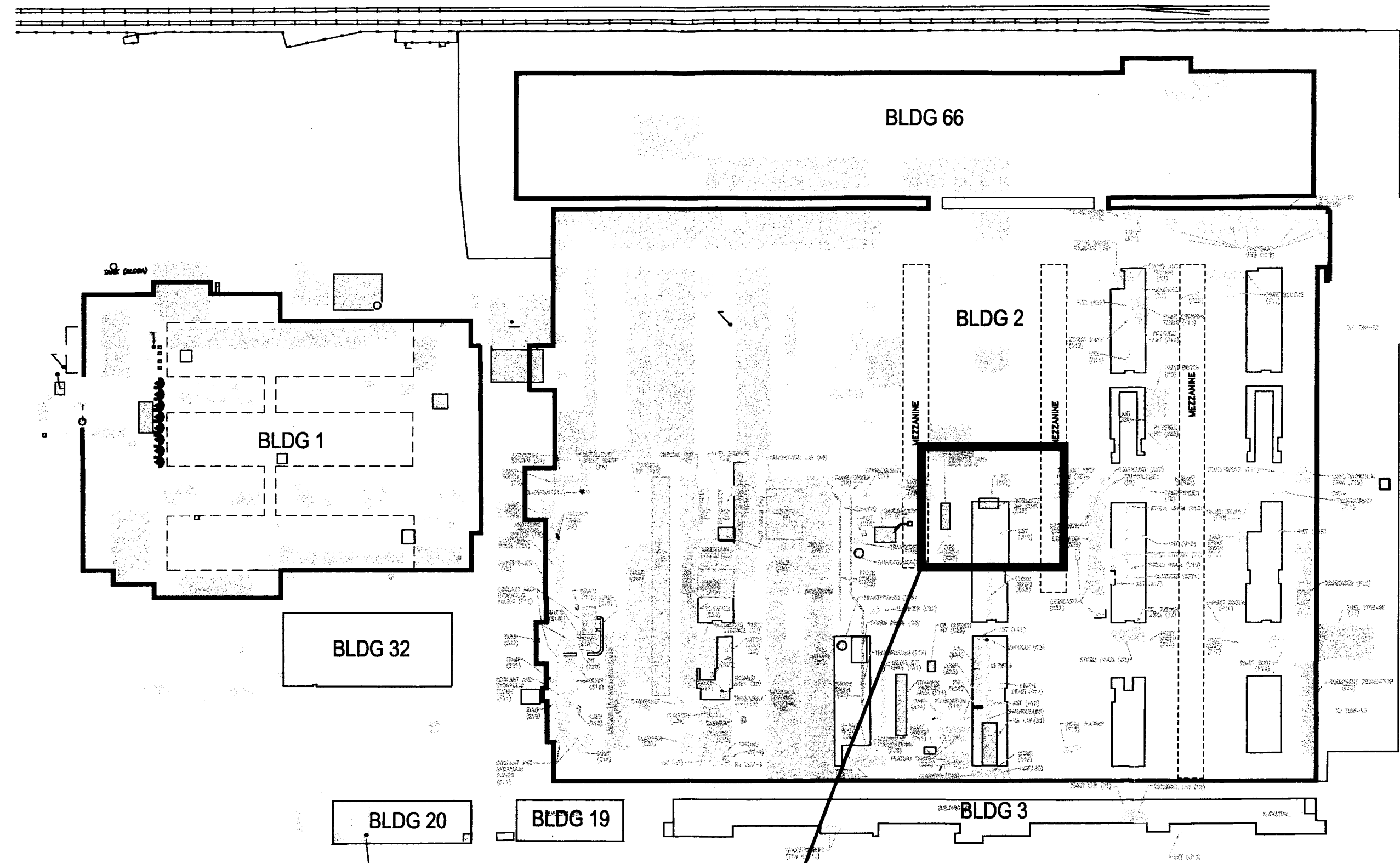
Sincerely yours,  
HALLEY & ALDRICH, INC.

  
Richard M. Farson, P.E.  
Senior Engineer  
Industrial Environmental Group




  
Scott Zachary  
Vice President and Project Manager  
Industrial Environmental Group

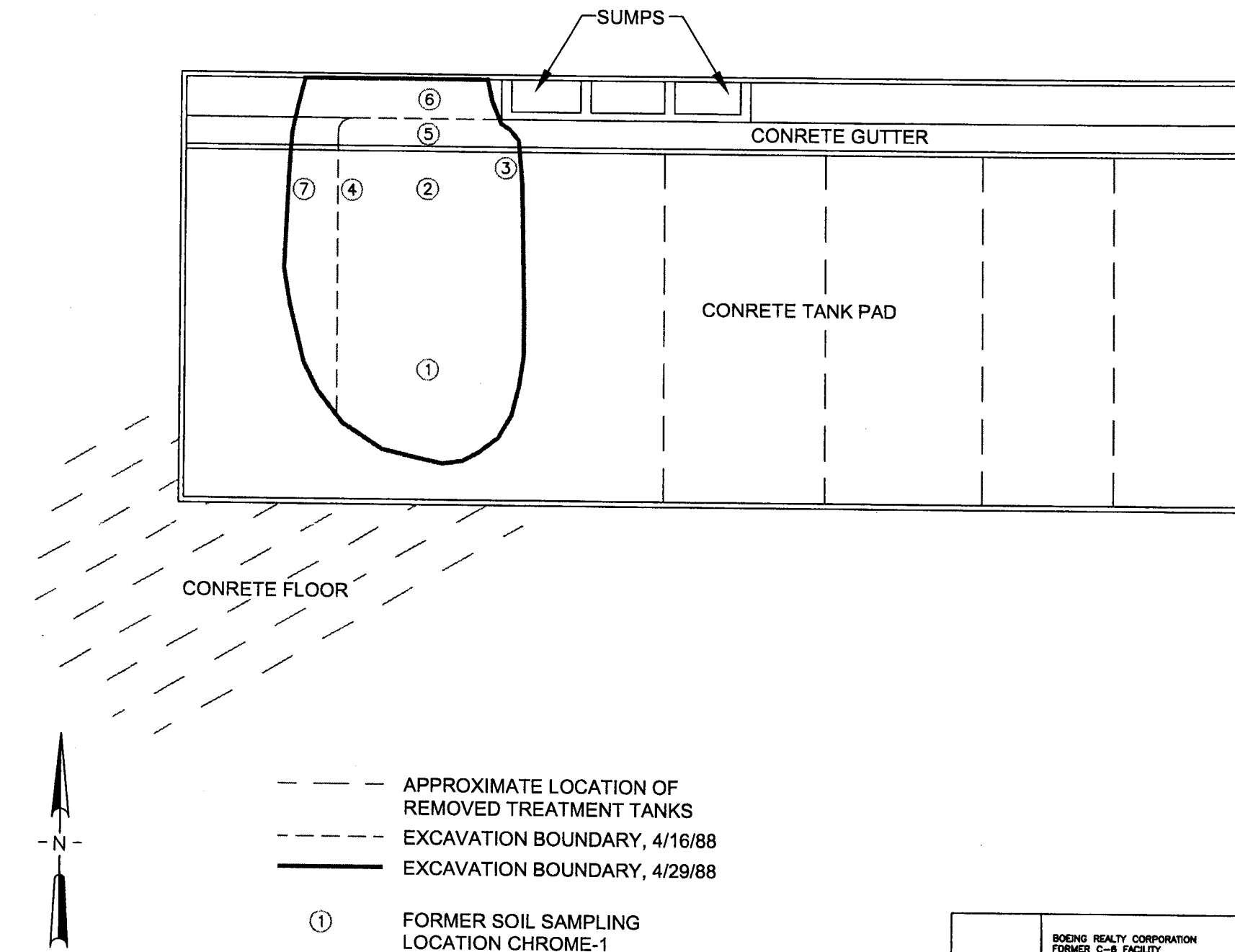
Attachments: Figure 1 – Former Chromic Acid Tank Location Map  
Figure 2 – Former Excavation Sample Location Map (Plan View)  
Figure 3 – Proposed Boring Location Map



FORMER CHROMIC ACID  
TANK LOCATION  
SEE FIGURE 3

	BOEING REALTY CORPORATION FORMER C-6 FACILITY LOS ANGELES, CALIFORNIA
	FORMER CHROMIC ACID TANK LOCATION MAP PARCEL C
	FIGURE 1

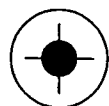
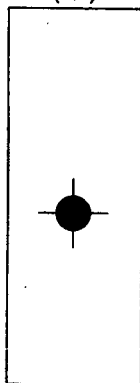
FEBRUARY, 2001



SOURCE: WOODWARD-CLYDE CONSULTANTS, CHROMIC ACID SOIL REMEDIATION AT DOUGLAS  
AIRCRAFT COMPANY C-6 FACILITY IN TORRANCE, CALIFORNIA, MAY 13, 1988

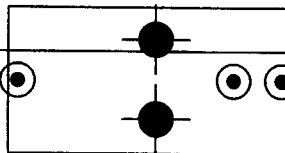
BOE-C6-0107012

FORMER ALUMINUM  
PROCESS TANK AREA  
(A19)



FORMER  
PIPE CASING

FORMER PIT  
(S31)



FORMER CHROMATE  
DIP TANK  
(S32)



FORMER UST  
(U12)

FORMER SEALANT  
PREP ROOM  
(36)



LEGEND



PROPOSED BORING



FORMER K/J BORING



BOEING REALTY CORPORATION  
FORMER C-8 FACILITY  
LOS ANGELES, CALIFORNIA

FORMER CHROMIC ACID TANK  
PROPOSED BORING LOCATION MAP  
PARCEL C

FIGURE 3

FEBRUARY, 2001